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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,789	01/31/2006	Jean Armiroli	658560089	7731
10/29/759011/21/2008 RADER, FISHMAN & GRAUER PLLC 39533 WOODWARD AVENUE SUITE 140 BLOOMFIELD HILLS, MI 48304-0610				
EXAMINER SCHNEIDER, CRAIG M				
ART UNIT 3753		PAPER NUMBER		
MAIL DATE 11/21/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/566,789

**Applicant(s)**

ARMIROLI ET AL.

**Examiner**

CRAIG M. SCHNEIDER

**Art Unit**

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-26 and 28-50 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 15-21, 23, 25, 26 and 28-50 is/are rejected.  
7) ☒ Claim(s) 22 and 24 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 31 January 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/25/08  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

#### **DETAILED ACTION**

1. The applicant is requesting translations of the prior art that was utilized (WO 98/45594 and WO2004/007959). The applicant is directed to the 892 form from the office action that was sent out on 4/2/08. The examiner included under the non-patent documents a translation of WO 98/45594. A copy of the translation that was utilized was sent with the office action. If the applicant did not receive a copy of this document, it is available in the PAIR system. The examiner also cited Patent 7,270,113 which was indicated in the office action of 4/2/08 as the US case of WO 2004/007959. This US Patent was utilized as the translation of the WO 2004/007959 document.

#### ***Drawings***

2. Figure 5 is not in English and needs to be resubmitted. Appropriate correction is required.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "28" has been used to designate both the ball on page 7, line 5 and in the Figures and the bore on page 7, line 8.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 34'.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 33 in Figure 3. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the

description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

6. The applicant's amendment to the specification dated 9/25/08 is not accepted. The applicant is utilizing the PGPUB document of the application as the reference to make the amendments not the originally filed specification that is the official specification of record.

7. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

8. The disclosure is objected to because of the following informalities:

On page 6, line 6 "outlet of the pump" should be --inlet of the pump--.

On page 6, line 11 "discharge rate control valve" should be --solenoid valve--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
10. Claims 15-21, 23, 28-34, and 46-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Krüger et al. (WO98/45594).

Krüger et al. disclose a delivery system for a fluid which may be used to attain a desired pressure and discharge rate of the fluid, the system comprising a control valve (10) having a valve body having an inner bore (70) generally defined by a bore axis, a valve inlet (35), and a valve outlet (36); a spool member (53) at least partially interposed within the inner bore and moveable therein generally along the bore axis; a biasing

member (17 and 60) for biasing the spool member within the inner bore; a force exerting portion (72) for axially moving the spool member within the inner bore; and a flap device (51 and 50) including a flap inlet (38) defined by a inlet flap outer conduit and an inlet flap inner conduit, wherein the biasing member, in a first valve configuration as depicted in Figure 5, permits the flap device to open when pressure within the inlet flap outer conduit reaches a first pressure, and the biasing member, in a second valve configuration (which would correspond to moving the valve downwards in Figure 5), prevents the flap device from opening when pressure within the inlet flap outer conduit reaches a second pressure, wherein the spool member, in a third valve configuration, directs the flow of a fluid from the valve inlet to the valve outlet when a biasing force imposed by the biasing member is sufficient to prevent the flap device from opening after pressure within the inlet flap outer conduit has reached an operating pressure; and a fluid pump (1) having a pump inlet (23) and a pump outlet (26), wherein the pump inlet is in fluid communication with the valve outlet.

Regarding claim 16, wherein the flap inlet is generally defined by a flap axis, and the flap axis is generally co-axial with the bore axis as can be seen in Figure 5.

Regarding claims 17, the claim is clearly anticipated by Krüger et al.

Regarding claim 18, wherein the electromagnet current is about 0 amps when the valve is in the first valve configuration (the unenergized state as seen in Figure 5).

Regarding claim 19, wherein the electromagnet current is between about 0 amps and a threshold value when the valve is in the second valve configuration (this occurs when the magnet is moved from the rest position).

Regarding claims 20 and 21, the claims are clearly anticipated by Krüger et al.

Regarding claim 23, wherein the flap device includes a seat (49) surrounding a flap orifice that defines a boundary between the inlet flap outer conduit and the inlet flap inner conduit, and a ball (50) that selectively contacts the seat to prevent the movement of fluids through the seat.

Regarding claim 29, the system further comprising a pressure sensor (9) for detecting the pressure of the fluid within a portion of the delivery system downstream of the pump.

Regarding claim 30, the system further comprising a control unit (6), wherein the control unit supplies power to the force exerting portion in response to a preselected pressure detected by the pressure sensor.

Regarding claims 31 and 32, the claims are clearly anticipated by Krüger et al.

Regarding claim 33, wherein the pump outlet is in direct fluid communication with the inlet flap inner conduit such that the flap device may regulate the pressure output of the pump within a portion of the delivery system as can be seen in Figure 1.

Regarding claims 34 and 46-50, the claims are clearly anticipated by Krüger et al.

***Claim Rejections - 35 USC § 103***

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 25, 26, and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krüger et al. in view of Good et al. (3,193,250).

Krüger et al. disclose all the features of the claimed invention except that the flap device is axially adjustable relative to the inner bore such that a biasing force exerted by the biasing member on a portion of the flap device may be adjusted. Good et al. disclose a axially adjustable closure member (16) such that the closing force exerted by the biasing member may be adjusted (col. 2, lines 45-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the adjustable valve seat of Good et al. onto the flap device of Krüger et al., in order to improve the lifetime seating characteristics (col. 1, lines 9-12).

Regarding claims 26 and 43-45, the claims are clearly obvious in view of the combination of Krüger et al. and Good et al.

13. Claims 35-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krüger et al. in view of Kelly (2004/0123841).

Krüger et al. disclose all the features of the claimed invention except that the first pressure in the system would be about 20-30 bar and that the second pressure would be the operating/idle pressure which is about 70 bar. Kelly discloses that the first pressure in the system would be about 20-30 bar and that the second pressure would be the operating/idle pressure which is about 100 bar (paragraph 2).

It would have been obvious to one of ordinary skill in the art to have the system of Krüger et al. function at the first and operating/idle pressures as disclosed by Kelly, since the first and operating/idle pressure as disclosed by Kelly are standard to a rail system.



***Allowable Subject Matter***

14. Claims 22 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

15. Applicant's arguments filed 9/25/08 have been fully considered but they are not persuasive. The applicant is arguing that the abstract of Kruger does not anticipate the claims as indicated above. The examiner provided a machine translation in the previous office action for the Krüger reference and also the US counterpart for the Hervault reference. The Hervault reference is not being utilized in this office action. The applicant is arguing that the Good reference is not an axially adjustable valve seat. The examiner disagrees with this and points out that when the device of Good closes the impact forces are absorbed by the springs and upon this action the valve seat moves in an axially direction. Therefore the valve seat of Good is an axially adjustable valve seat.

***Conclusion***

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CRAIG M. SCHNEIDER whose telephone number is (571)272-3607. The examiner can normally be reached on M-F 8:00 -4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. M. S./  
Examiner, Art Unit 3753  
November 12, 2008

/John Rivell/  
Primary Examiner, Art Unit 3753